



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,633	08/18/2005	Takeo Eguchi	09792909-6222	7528

26263	7590	09/13/2007
SONNENSCHN NATH & ROSENTHAL LLP		
P.O. BOX 061080		
WACKER DRIVE STATION, SEARS TOWER		
CHICAGO, IL 60606-1080		

EXAMINER	
STEPHENS, JUANITA DIONNE	

ART UNIT	PAPER NUMBER
2853	

MAIL DATE	DELIVERY MODE
09/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/530,633

Applicant(s)

EGUCHI ET AL.

Examiner

Juanita D. Stephens

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed 8/18/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10, 11, 13, 14 and 19 is/are rejected.
- 7) ☐ Claim(s) 9, 12, 15/13, 15/14, 16-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/7/2005.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. Acknowledgement is made of the Information Disclosure Statement filed 4/7/2005.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

3. Claims 1, 2, 3, 4, 6, 7, 8, 9, 10-19 and are objected to because of the following informalities:

In claim 1, lines 6-7, replace "the turnaround" with --a turnaround--.

In claim 2, line 6 replace "the turnaround" with --a turnaround--.

In claim 2, line 7 replace "the main part" with --a main part--.

In claim 3, lines 6-7 replace "the turnaround" with --a turnaround--.

In claim 4, line 6 replace "the turnaround" with --a turnaround--.

In claim 4, line 7 replace the main part" with --a main part--.

In claim 6, lines 4-5 replace the main part" with --a main part--.

In claim 8, line 6 replace "the region outside the inner turnaround" with --a region outside an inner turnaround--.

In claim 8, lines 7-8 replace "the main part" with --a main part--.

In claim 9, line 4 replace "the opposite" with --an opposite--.

In claim 9, line 6 replace "the distance" with --a distance--.

The claims (10-19) are replete with antecedent basis problems like the examples described above. The Applicant is behooved to place claims in proper form.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-8, 10-11, 13, 14, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by EP - 0124312.

EP-0124312 discloses a process for production of a liquid ejection head and a liquid ejecting head having heat-energy evolving elements (resistive element 8) that evolve heat energy to eject liquid (page 6, Ins 9-10; page 7, Ins 4-11), comprising: 1) wherein said heat-energy evolving elements (8) are constructed of an integral substrate, assume a zigzag pattern/u-shaped parts (formed by resistive structure 8' and 8") (as shown in Figs. 3 and 6B) , 2) having conductors (10) connected thereto at the turnaround part of the zigzag pattern/u-shaped parts, 3) each of the elements has thereon a nozzle (orifice 20) through which liquid is ejected (page 7, Ins 4-11), 4) the main part evolving heat energy to eject liquid is divided into at least two parts (8' and 8" by the turnaround part of the zigzag pattern/u-shaped parts (page 8, Ins 21-page 9, In 1), 5) at least main parts divided by at least one slit formed in part of the substrate (page 8, Ins 21-page 9, In 1), having conductors (10) connected thereto at the part of the two

where main parts (8' and 8'') are joined together , 6) the main part of evolving heat energy to eject liquid, said main part being divided into at least two parts by at least one slit (page 8, lns 21-page 9, ln 1), 6) having conductors (10' and 10'') connected thereto in the region outside the inner turnaround line at the turnaround part of the zigzag pattern/u-shaped parts(page 8, lns 30-32), and 7) conductors connected thereto in the region outside the inner turnaround line at the turnaround part of the zigzag pattern/u-shaped parts, so that the main part evolving heat energy to eject liquid is divided into at least two parts by the turnaround part of the zigzag pattern (page 8, lns 21-page 9, ln 1). The method of claim 19 is disclosed by EP-0124312 as discussed above with respect to the apparatus.

Allowable Subject Matter

6. Claims 9, 12, 15-13 and 15/14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose, suggest or render obvious the limitation of wherein the heat energy evolving element has other conductors connected thereto on the opposite side beyond the main part from the conductor, the distance from the turnaround line of the zigzag pattern to the edge of the conductor is 0.08 to 0.10 times the distance between said conductor and said other conductor. This invention solves the problem of controlling ink ejection.

Art Unit: 2853

8. Claims 16-18 will be allowed after correction as identified in the "Claim Objection" section are made.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juanita D. Stephens whose telephone number is (571) 272-2153. The examiner can normally be reached on Flex (Monday-Thursday 9:00 am -6:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

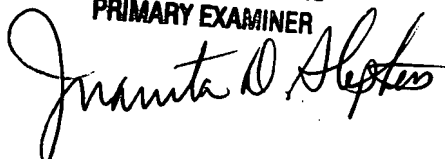
Application/Control Number: 10/530,633

Page 6

Art Unit: 2853

USPTO Customer Service Representative or access to the automated
information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JUANITA D. STEPHENS
PRIMARY EXAMINER

A handwritten signature in cursive script, appearing to read "Juanita D. Stephens", written over the printed name and title.

Juanita D. Stephens
Primary Examiner
Art Unit 2853

JDS

September 10, 2007